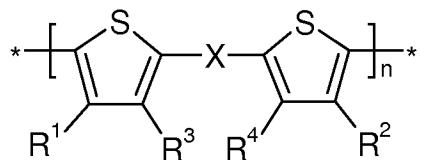


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

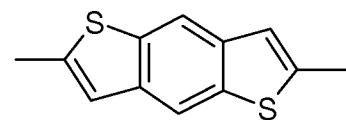
1. (Currently Amended): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one mono-, oligo-oligomer or polymer of formula I



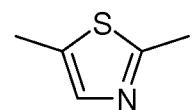
wherein

X is -C≡C- or is selected from formulae IIa-IId, IIe-IIi, IIm, IIIn and their mirror images

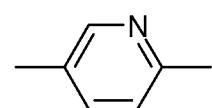




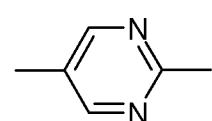
IIId



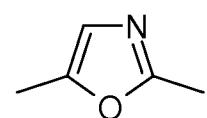
IIIf



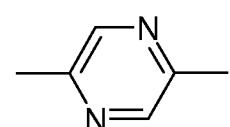
II Ig



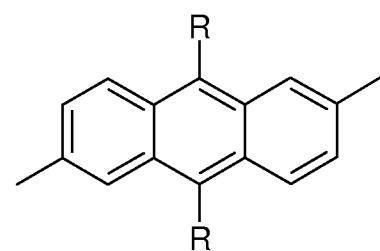
II Ih



II Ii



II Im



II In

R is in each case independently H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

r is 0, 1, 2, 3 or 4,

s is 0, 1, 2 or 3,

R¹ - R⁴ are independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

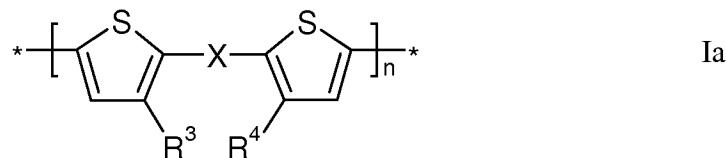
n is an integer $\geq 1 \geq 4$,

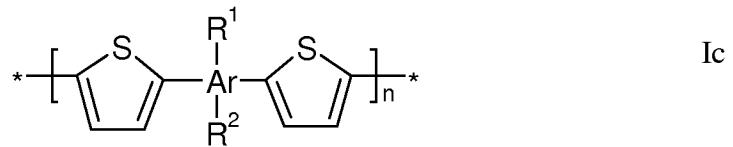
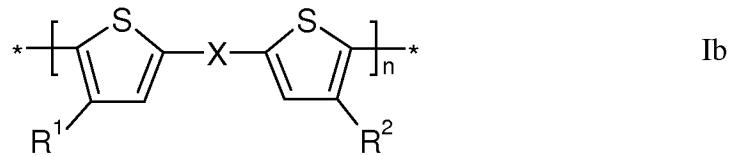
with the provisos that:

(1) (2) X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene; and

(2) (3) if X is naphthalene-2,6-diyl that is unsubstituted or substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane, then both R¹ and R² are other than H and/or both R³ and R⁴ are other than H.

2. (Currently Amended): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one ~~mono~~, ~~oligo~~-oligomer or polymer of formulae Ia - Ic:





wherein

X is -C≡C-, optionally substituted arylene, or optionally substituted heteroarylene,

R¹ - R⁴ are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond,

n is an integer ≥ 1 , and

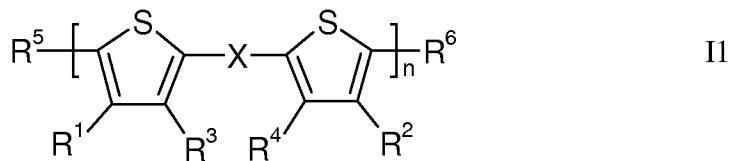
Ar is arylene or heteroarylene,

wherein

X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene, and if X is naphthalene-diyl it is substituted or unsubstituted naphthalene-2,6-diyl or naphthalene-4,8-diyl, and

ArR¹R² is not naphthalene-2,6-diyl or naphthalene-4,8-diyl that is substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane.

3. (Currently Amended): A device according to claim 1, wherein said mono-oligo
oligomer or polymer is of formula I1



wherein

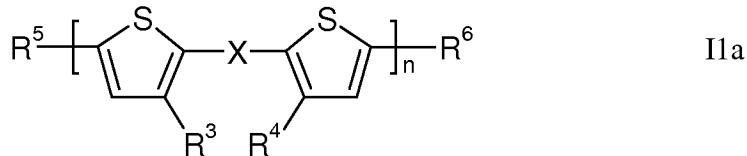
R⁵ and R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

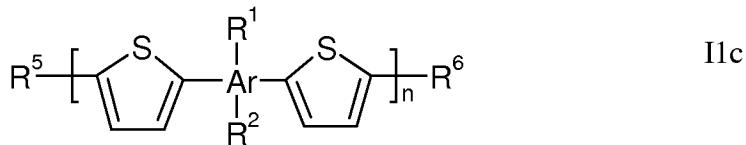
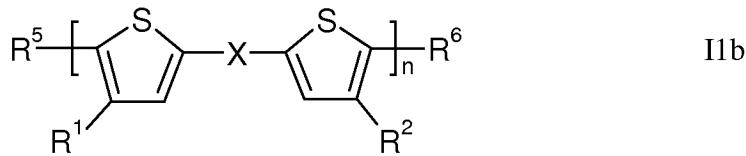
R⁰ and R⁰⁰ are independently of each other H or alkyl with 1 to 12 C-atoms,

R⁷ and R⁸ are independently of each other H or alkyl with 1 to 12 C-atoms, or OR⁷ and OR⁸ together with the boron atom form a cyclic group having 2 to 10 C atoms, and

R⁹ to R¹¹ are independently of each other H or alkyl with 1 to 12 C-atoms.

4. (Currently Amended): A device according to claim 3 ~~2~~, wherein said ~~mono-~~, ~~oligo-~~ oligomer or polymer is selected from formulae I1a - I1c:





wherein

R⁵ to R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, straight chain, branched or cyclic alkyl with 1 to 20 C atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non adjacent CH₂ groups are optionally replaced, in each case independently from one another, by O, S, NH, NR⁰, SiR⁰R⁰⁰, CO, COO, OCO, OCOO, SO₂, S-CO-, CO-S-, CH=CH or C≡C in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp,

R⁷ and R⁸ are independently of each other H or alkyl with 1 to 12 C atoms, or OR⁷ and OR⁸ together with the boron atom form a cyclic group having 2 to 10 C atoms,

R⁹ to R¹¹ are independently of each other H or alkyl with 1 to 12 C atoms, and

R⁰ and R⁰⁰ are independently of each other H or alkyl with 1 to 12 C atoms.

5. (Previously Presented): A device according to claim 1, wherein said material contains an oligo- or polymer of formula I having a regioregularity of at least 95%.

6. (Currently Amended): A device according to claim 1, wherein n is an integer from 2 to 5000 ~~1 to 5000~~.

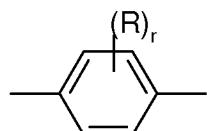
7. (Previously Presented): A device according to claim 1, wherein R¹ to R⁴ are each independently selected from H, halogen, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl and P-Sp-, and R⁰ and R⁰⁰ are independently of each other H or alkyl with 1 to 12 C-atoms.

8. (Withdrawn): A device according to claim 1, wherein R¹ to R⁴ are each independently selected from C₁-C₂₀-alkyl that is optionally substituted with one or more fluorine atoms, C₁-C₂₀-alkenyl, C₁-C₂₀-alkynyl, C₁-C₂₀-alkoxy, C₁-C₂₀-thioalkyl, C₁-C₂₀-silyl, C₁-C₂₀-ester, C₁-C₂₀-amino, C₁-C₂₀-fluoroalkyl, (CH₂CH₂O)_m with m being an integer from 1 to 6, optionally substituted aryl, optionally substituted heteroaryl.

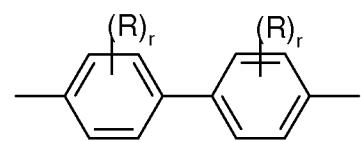
9. (Withdrawn): A device according to claim 1, wherein R¹ to R⁴ are each independently selected from C₁-C₂₀-alkyl or C₁-C₂₀-fluoroalkyl.

10. (Previously Presented): A device according to claim 1, wherein X is mono-, bi- or tricyclic arylene or heteroarylene with up to 25 C atoms, wherein the rings can be fused, and in which the heteroaromatic groups contain at least one hetero ring atom, and wherein said arylene and heteroarylene groups are optionally substituted with one or more of F, Cl, Br, I, CN, and straight chain, branched or cyclic alkyl having 1 to 20 C atoms, which is unsubstituted, mono- or poly-substituted by F, Cl, Br, I, -CN or -OH, and in which one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another.

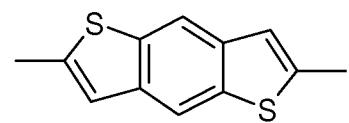
11. (Previously Presented): A device according to claim 1, wherein X is selected from formulae IIa, IIc, IId, IIIf-IIi, IIIm, IIIn and their mirror images



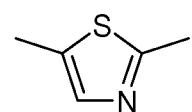
IIa



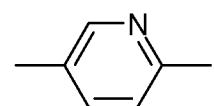
IIc



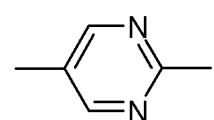
IIId



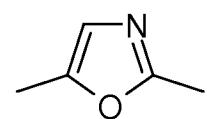
IIIf



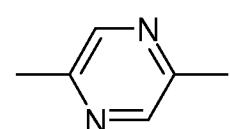
IIg



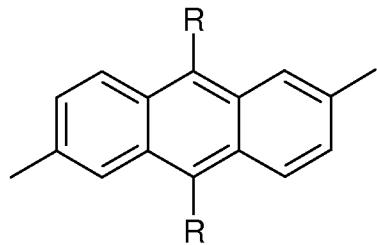
IIIh



IIii



IIIm



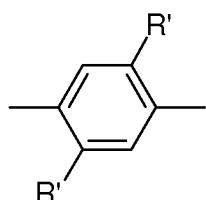
IIIn

wherein

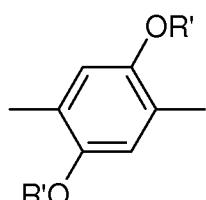
R is in each case independently halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-, and

r is 0, 1, 2, 3 or 4.

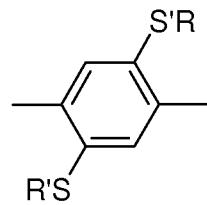
12. (Withdrawn): A device according to claim 2, wherein Ar(R^1R^2) is selected from formulae IIIa - IIIe and their mirror images



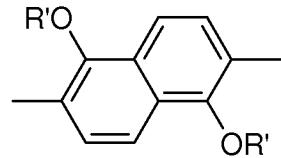
IIIa



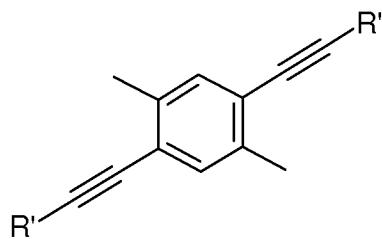
IIIb



IIIc



IIId

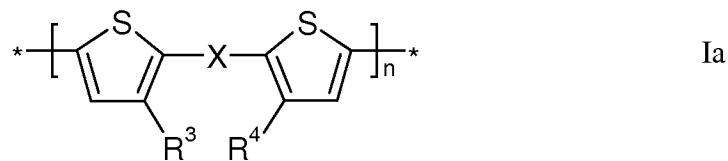


IIIe

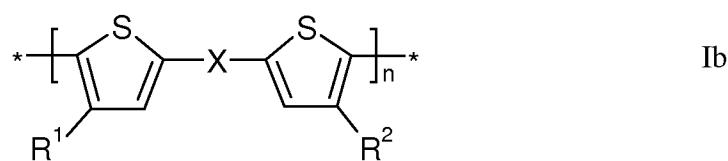
wherein

R' is in each case independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-.

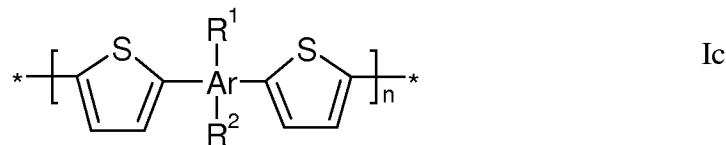
13. (Currently Amended): A mono-, oligo- oligomer or polymer of formula Ia - Ic



Ia



Ib



wherein

X is $-CX^1=CX^2-$, $-C\equiv C-$, optionally substituted arylene, or optionally substituted heteroarylene,

X^1 and X^2 are independently of each other H, F, Cl or CN,

$R^1 - R^4$ are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

n is an integer $\geq 1 \geq 4$, and

Ar is arylene or heteroarylene,

with the provisos that

a) if X or Ar is unsubstituted thiophene-2,5-diyl, then at least one of R^{1-4} is alkyl that is mono- or polysubstituted by F, Cl, Br, I or CN, cycloalkyl that is mono- or polysubstituted by F, Cl, Br, I or CN, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-, and

b) X and $Ar(R^1R^2)$ are different from dithienothiophene, 1,4-phenylene, 2,5-dialkyl- or 2,5-dialkoxy-1,4-phenylene, furan-2,5-diyl, 1-alkyl-1H-pyrrol-2,5-diyl, 9H-fluorene-2,7-diyl, 9,9-dialkyl-9H-fluorene-2,7-diyl, N-alkyl-9H-carbazole-2,7-diyl and anthracene-9,10-diyl, and

c) Ar(R¹R²) is different from 2,5-dialkyl- or 2,5-dialkoxy-1,4-phenylene, naphthalene-2,6-diyl, naphthalene-4,8-diyl that is substituted in 1-, 4-, 5- and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane groups, 9,9-dialkyl-9H-fluorene-2,7-diyl and N-alkyl-9H-carbazole-2,7-diyl.

14. (Cancelled):

15. (Cancelled):

16. (Cancelled):

17. (Cancelled):

18. (Withdrawn): In a effect transistors (FET) or thin film transistor (TFT), containing semiconductor or charge transport material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.

19. (Cancelled):

20. (Withdrawn): In a battery containing electrode material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.

21. (Withdrawn): In a battery containing electrode material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.

22. (Withdrawn): In a photoconductor, the improvement wherein said photoconductor contains a mono-, oligo- or polymer according to claim 13.

23. (Withdrawn): In a method of electrophotographic recording, the improvement wherein a mono-, oligo- or polymer according to claim 13 is employed as electrophotographic material.

24. (Currently Amended): A device according to claim 1, wherein said device is a

field effect transistor transistors (FET).

25. (Previously Presented): A device according to claim 1, wherein said device is a thin film transistor or a thin film transistor array for flat panel displays.

26. (Previously Presented): In a security marking or device comprising a FET, the improvement wherein said FET is according to claim 24.

27. (Withdrawn): A mono-, oligo- and polymer, material or polymer as defined in claim 13, which is oxidatively or reductively doped to form conducting ionic species.

28. (Withdrawn): In a charge injection layer, planarising layer, antistatic film or conducting substrate or pattern for electronic applications or flat panel displays, the improvement wherein said layer, film, substrate, pattern or display contains a mono-, oligo- or polymer, material or polymer according to claim 27.

29. (Cancelled):

30. (Cancelled):

31. (Cancelled):

32. (Cancelled):

33. (Previously Presented): A device according to claim 4, wherein R⁵ to R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, optionally substituted aryl, optionally substituted heteroaryl, P-Sp-, or straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another.

34. (Previously Presented): A device according to claim 4, wherein R⁵ to R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, optionally substituted aryl,

optionally substituted heteroaryl, P-Sp-, or straight chain, branched or cyclic alkyl with 1 to 20 C-atoms wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another and which is unsubstituted or mono- or polysubstituted by F, Cl, Br, I or CN.

35. (Cancelled):

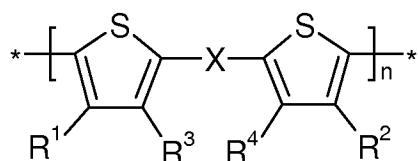
36. (Withdrawn): A mono-, oligo- or polymer according to claim 13, wherein said mono-, oligo- or polymer is of formula Ia and at least one of R³ and R⁴ is halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-.

37. (Cancelled):

38. (Cancelled):

39. (Cancelled):

40. (Currently Amended): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one mono-, oligo- or polymer of formula I

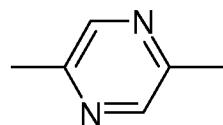


wherein

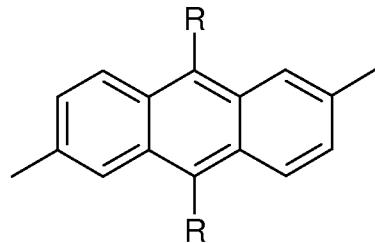
R¹ - R⁴ are independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

X is selected from formulae IIb-IId, IIe-IIi, IIm, IIo and their mirror images





IIIm



IIIn

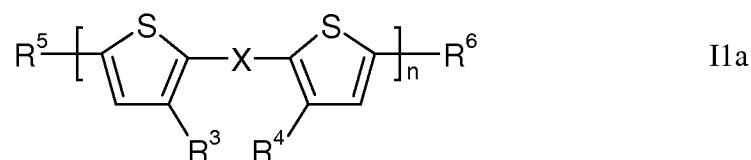
wherein

R is in each case independently halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

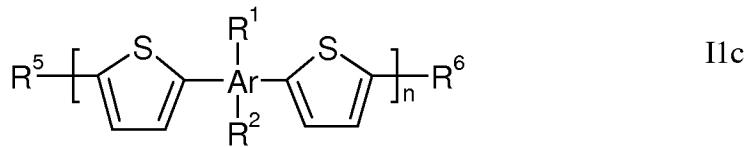
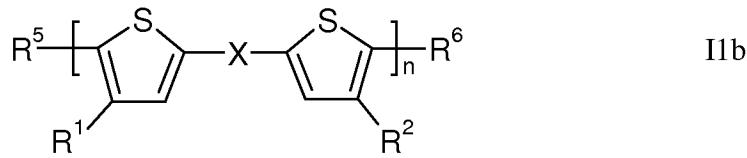
r is 0, 1, 2, 3 or 4, and

s is 1, 2 or 3.

41. (Previously Presented): A device according to claim 1, wherein said mono-, oligo- or polymer is selected from formulae I1a - I1c:



I1a



wherein

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond,

R⁵ to R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

R⁷ and R⁸ are independently of each other H or alkyl with 1 to 12 C-atoms, or OR⁷ and OR⁸ together with the boron atom form a cyclic group having 2 to 10 C atoms,

R⁹ to R¹¹ are independently of each other H or alkyl with 1 to 12 C-atoms,

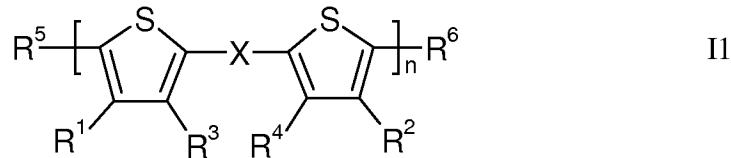
R⁰ and R⁰⁰ are independently of each other H or alkyl with 1 to 12 C-atoms,

Ar is arylene or heteroarylene, and

n is an integer ≥ 1.

42. (Cancelled):

43. (New): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one monomer of formula I1



R¹ - R⁴ are independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

R⁵ and R⁶ are independently of each other H, halogen, B(OR⁷)(OR⁸), SnR⁹R¹⁰R¹¹, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

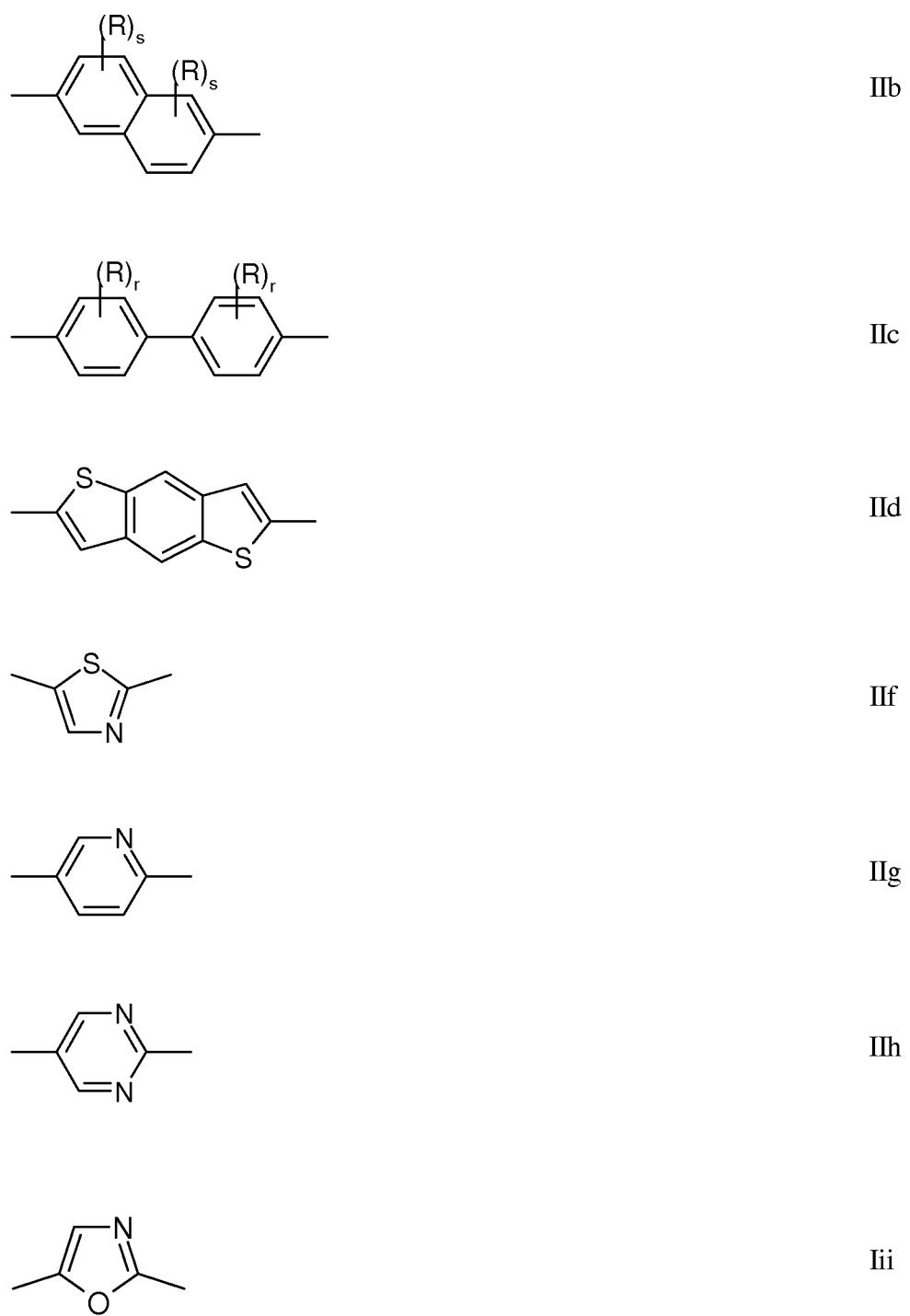
R⁰ and R⁰⁰ are independently of each other H or alkyl with 1 to 12 C-atoms,

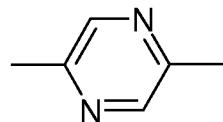
R⁷ and R⁸ are independently of each other H or alkyl with 1 to 12 C-atoms, or OR⁷ and OR⁸ together with the boron atom form a cyclic group having 2 to 10 C atoms,

R⁹ to R¹¹ are independently of each other H or alkyl with 1 to 12 C-atoms,

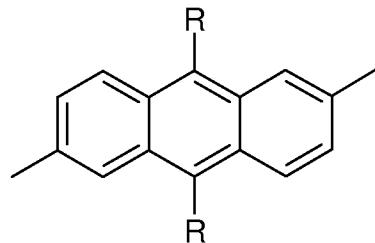
X is -C≡C- or is selected from formulae IIa-IId, IIf-IIi, IIm, IIn and their mirror images







IIIm



IIIn

R is in each case independently H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

r is 0, 1, 2, 3 or 4,

s is 0, 1, 2 or 3,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

n is 1,

with the provisos that:

(1) X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene; and

(2) if X is naphthalene-2,6-diyl that is unsubstituted or substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane, then both R¹ and R² are other than H and/or both R³ and R⁴ are other than H.

44. (New): A device according to claim 43, wherein said monomer is selected from formulae I1a - I1c:

